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ACHA3000

01/11/21

12pm

$$4) \quad 17x^2 = -5x + 14$$

$$17x^2 + 5x - 14 = 0$$

$\begin{matrix} & & \swarrow & \nwarrow \\ a & & b & & c \end{matrix}$

$$5) \quad 6x + 5y = 35 \quad (1) \cdot 4$$

$$7x - 4y = 31 \quad (2) \cdot 5$$

$$24x + 20y = 140 \quad (3)$$

$$35x - 20y = 155 \quad (4)$$

$$59x = 295$$

$$\frac{59x}{59} = \frac{295}{59}$$

$$\boxed{x = 5}$$

$$\boxed{y = 1}$$

$$6(5) + 5y = 35$$

$$30 + 5y = 35$$

$$5y = 5$$

$$y = 1$$

$$6x + 5(1) = 35$$

$$6x + 5 = 35$$

$$\frac{6x}{6} = \frac{30}{6}$$

$$x = 5$$

$$x = \frac{-5 \pm \sqrt{5^2 - 4(17)(-14)}}{2(17)}$$

$\begin{matrix} & -68 & -14 \\ & \cdot & \\ & -952 & \end{matrix}$

$$\frac{-5 \pm \sqrt{25 + 952}}{34}$$

$$\frac{-5 \pm \sqrt{977}}{34}$$

$$\frac{-5 \pm \sqrt{31.25}}{34}$$

$$\frac{-5 + 31.25}{34}$$

$$\frac{-5 - 31.25}{34}$$

$$\frac{26.25}{34}$$

$$\frac{-36.25}{34}$$

$$\boxed{x = 0.772}$$

$$\boxed{x = -1.066}$$